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**(WO/2004/015625) MULTI-FREQUENCY IDENTIFICATION DEVICE**

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**Title:** MULTI-FREQUENCY IDENTIFICATION DEVICE

**Abstract:** The present invention comprises a radio frequency identification device that utilizes multiple operating frequencies. In one embodiment of the present invention, one frequency (e.g., an ultra-high frequency such as 915 MHz, 800 MHz, 915 MHz, or microwave frequency such as 2.45 GHz) is used for data transmission, and another frequency (e.g., a low or high frequency such as 13.56 MHz) is used for field penetration. In another embodiment, one frequency is used for reading information received from the multi-frequency identification device, and another frequency is used for writing to the multi-frequency identification device. In an additional embodiment, the multi-frequency identification device utilizes one antenna for all frequencies. In another embodiment, the multi-frequency identification device utilizes two or more antennas for different frequencies, and one common memory. In other embodiments, one or two digital parts, analog parts, antennas, and memories can be used.

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